

# Mineral Industry Surveys

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## CHROMIUM IN FEBRUARY 1998

Chromite consumption decreased 7% in February 1998 compared with that of the previous month, according to the U.S. Geological Survey. Net production of chromium ferroalloys and metal in February 1998 increased 8% compared with production data for January 1998, and consumption of ferroalloys and metal in February 1998 increased slightly compared with revised consumption data in January 1998. Chromite stocks decreased 12% over the same period. At the February 1998 rate of consumption, chromium stocks represented 5 months of domestic supply. Chromium ferroalloys and

metal stocks increased 25% compared with those of January 1998. At the February 1998 rate of consumption, chromium and metal stock represent 0.7 months of domestic supply.

Included in this Mineral Industry Surveys are U.S. consumption and stocks of chromite; U.S. net production, net shipments, and stocks of chromium materials; U.S. Government inventory for February 1998; U.S. consumption by end use and consumer stocks for chromium ferroalloys and metal for February 1998; and foreign trade for January 1998.

TABLE 1  
U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight unless otherwise noted)

	1997		1998		
	4th quarter	Jan.-Dec.	Jan.	Feb.	Jan.-Feb.
Production:					
Chromium ferroalloys and metal: 2/					
Net production:					
Gross weight	14,200	60,700	4,390	4,740	9,130
Chromium content	9,470	40,900	2,950	3,270	6,220
Net shipments	8,760	56,300	3,620	3,800	7,420
Stainless steel production 3/	466,000	2,160,000 r/	NA	NA	NA
Components of U.S. supply:					
Stainless steel scrap receipts	173,000	707,000	63,800	46,600	110,000
Imports for consumption					
Chromite ore	61,300	303,000	54,200	NA	54,200 4/
Chromium ferroalloys 5/	66,800	392,000	39,800	NA	39,800 4/
Chromium metal 6/	2,160	9,800	701	NA	701 4/
Stainless steel	NA	510,000 7/	72,600	NA	72,600
Stainless steel scrap	NA	NA	4	NA	4 4/
Distribution of U.S. supply:					
Consumption:					
Chromite ore	90,100	350,000	35,700	33,100	68,900
Chromium ferroalloys & metal	83,700	354,000	29,300 r/	29,800	59,100
Exports:					
Chromite ore	2,640	18,500	1,240	NA	1,240 4/
Chromium ferroalloys	2,020	9,180	639	NA	639 4/
Chromium metal	142	2,340	101	NA	101 4/
Stainless steel	NA	NA	17,900	NA	17,900
Stainless steel scrap	84	370	22	NA	22 4/
Stocks at end of period:					
Industry:					
Chromite ore:					
Chemical and metallurgical	167,000	XX	193,000	172,000	XX
Refractory	7,520	XX	6,740	5,820	XX
Total	175,000	XX	200,000	178,000	XX
Chromium ferroalloys and metal:					
Producer	10,900	XX	11,600	12,600	XX
Consumer	16,200	XX	17,000 r/	22,100	XX
Government stockpile:					
Chromite ore	1,090,000	XX	1,070,000	1,060,000	XX
Chromium ferroalloys	1,020,000	XX	1,020,000	1,020,000	XX
Chromium metal	7,720	XX	7,720	7,720	XX

r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low- and high-carbon ferrochromium, chromium concentrates, ferrochromium, chromium metal, and other miscellaneous alloys.

3/ Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat resisting raw steel.

4/ Includes data for January; February data not available at time of publication.

5/ Includes high-, medium-, and low- ferrochromium and ferrochromium silicon.

6/ Includes waste and scrap and other.

7/ Includes data for January through June; July through December data not available at time of publication.

TABLE 2  
U.S. CONSUMPTION, BY END USE, AND CONSUMER STOCKS OF  
CHROMIUM FERROALLOYS AND METAL IN FEBRUARY 1998 1/

(Metric tons, gross weight unless otherwise noted)

End use	Ferrochromium			Other	Total	Jan. through Feb. total 2/
	Low-carbon	High- and medium-carbon	Ferro-chromium silicon			
Steel:						
Carbon	280	289	6	1	577	1,237
Stainless and heat resisting	432	20,946	W	W	21,378	41,762
Full alloy	327	1,793	W	4	2,124	4,392
High-strength low-alloy and electric	154	W	632	W	787	1,585
Tool	(3/)	W	--	W	W	W
Cast irons	(3/)	124	W	W	124	230
Superalloys	185	533	--	267	985	2,049
Alloys:						
Welding materials 4/	--	10	--	W	10	20
Other alloys 5/	14	W	--	46	60	132
Miscellaneous and unspecified	(3/)	356	3,368	59	3,783	7,834
Total: 6/ gross weight	1,393	24,051	4,007	376 7/	29,827	XX
Chromium content	912	14,456	1,444	331	17,143	XX
Stocks, Feb. 27, 1998	1,546	19,441	826	288 8/	22,100	XX
Jan. through Feb.: 2/						
Total	3,247	47,175	8,037	784 9/	XX	59,242
Chromium content	2,182	28,496	2,896	694	XX	34,267

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes revised data from previous months.

3/ Withheld to avoid disclosing company proprietary data.

4/ Includes structural and hard-facing materials.

5/ Includes magnetic, aluminum, copper, nickel, and other alloys.

6/ Includes estimates.

7/ Includes 285 tons of chromium metal.

8/ Includes 223 tons of chromium metal.

9/ Includes 602 tons of chromium metal.

TABLE 3  
U.S. GOVERNMENT STOCKPILE INVENTORY 1/ OF CHROMIUM MATERIALS 2/

(Metric tons)

Period	Chromite ore			Chromium ferroalloys			Chromium metal	
	Chemical	Metal-lurgical	Refractory	High-carbon ferro-chromium	Low-carbon ferro-chromium	Ferro-chromium silicon	Alumino-thermic	Electrolytic
1997:								
February	220,000	633,000	322,000	695,000	283,000	52,700	2,670	5,050
March	220,000	627,000	318,000	695,000	283,000	52,700	2,670	5,050
April	220,000	626,000	318,000	695,000	283,000	52,700	2,670	5,050
May	220,000	620,000	312,000	689,000	283,000	52,700	2,670	5,050
June	217,000	614,000	309,000	689,000	283,000	52,700	2,670	5,050
July	217,000	611,000	309,000	689,000	283,000	52,700	2,670	5,050
August	217,000	592,000	309,000	689,000	283,000	52,700	2,670	5,050
September	217,000	592,000	309,000	689,000	283,000	52,700	2,670	5,050
October	217,000	565,000	309,000	689,000	283,000	52,700	2,670	5,050
November	217,000	565,000	309,000	689,000	283,000	52,700	2,670	5,050
December	217,000	565,000	309,000	689,000	283,000	52,700	2,670	5,050
1998:								
January	217,000	557,000	296,000	689,000	283,000	52,700	2,670	5,050
February	216,000	549,000	296,000	689,000	283,000	52,700	2,670	5,050

1/ Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.

2/ Data are rounded to three significant digits.

Source: Defense National Stockpile Center.

TABLE 4  
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS AND METAL 1/

Period	Chromite ore		Chromium ferroalloys 2/			Chromium metal 3/	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
1997:							
January	1,540	\$364	635	405	\$718	60	\$600
February	5,930	977	975	609	1,160	142	1,120
March	1,480	487	841	527	939	180	1,260
April	1,830	376	1,060	561	1,300	379	2,610
May	1,230	237	1,020	585	1,030	387	2,820
June	643	131	995	589	1,090	251	1,840
July	759	222	358	220	387	274	1,900
August	1,070	307	633	385	714	317	2,040
September	1,370	260	636	368	730	210	1,740
October	1,050	394	1,060	543	1,200	43	528
November	843	263	505	301	463	50	585
December	747	184	453	270	507	49	368
Jan.-Dec.	18,500	4,200	9,180	5,360	10,200	2,340	17,400
1998:							
January	1,240	387	639	384	609	101	1,380

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.

3/ Includes wrought and unwrought and waste and scrap.

Source: Bureau of the Census.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE,  
FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1997			1998
	Nov.	Dec.	Jan.-Dec.	Jan.
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	--	60	7,120	--
Chromic oxide content	--	11	2,140	--
More than 40% but less than 46% chromic oxide:				
Gross weight	--	--	19,500	--
Chromic oxide content	--	--	8,970	--
46% or more chromic oxide:				
Gross weight	72	460	277,000	54,200
Chromic oxide content	34	214	130,000	26,200
Total, all grades:				
Gross weight	72	520	303,000	54,200
Chromic oxide content	34	225	141,000	26,200
Ferrochromium:				
Low-carbon: 2/				
Gross weight	1,530	2,010	59,100	4,740
Chromium content	1,020	1,340	39,000	3,190
Medium-carbon: 3/				
Gross weight	4	--	1,550	104
Chromium content	3	--	834	72
High-carbon: 4/				
Gross weight	29,100	19,200	331,000	34,900
Chromium content	15,700	9,830	182,000	19,100
Total, all grades				
Gross weight	30,600	21,200	392,000	39,800
Chromium content	16,700	11,200	222,000	22,400
Chromium metal:				
Other than waste and scrap	446	825	9,770	701
Waste and scrap	--	15	25	--
Total, all grades	446	840	9,800	701

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Ferrochromium containing not more than 3% carbon.

3/ Ferrochromium containing more than 3% carbon but not more than 4% carbon.

4/ Ferrochromium containing more than 4% carbon.

Source: Bureau of the Census.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN JANUARY 1998,  
BY GRADE AND BY COUNTRY 1/

Country	Gross weight (metric tons)	Cr <sub>2</sub> O <sub>3</sub> (metric tons)	Value 2/ (thousands)
46% or more chromic oxide:			
South Africa	54,200	26,200	\$4,410

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN JANUARY 1998,  
BY GRADE AND BY COUNTRY 1/

Country	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)
High-carbon ferrochromium: 3/			
China	34	26	\$34
India	1,160	696	620
South Africa	23,600	12,000	9,970
Turkey	5,500	3,410	2,810
United Kingdom	16	10	10
Zimbabwe	4,640	2,930	2,920
Total	34,900	19,100	16,400
Medium-carbon ferrochromium: 4/			
Kazakhstan	104	72	74
Low-carbon ferrochromium: 5/			
China	115	76	155
Germany	1,120	784	2,670
Russia	2,550	1,770	2,660
South Africa	697	388	495
Zimbabwe	260	176	157
Total	4,740	3,190	6,130
Total, all grades:			
China	149	99	189
Germany	1,120	784	2,670
India	1,160	696	620
Kazakhstan	104	72	74
Russia	2,550	1,770	2,660
South Africa	24,300	12,400	10,500
Turkey	5,500	3,410	2,810
United Kingdom	16	10	10
Zimbabwe	4,900	3,100	3,070
Total	39,800	22,400	22,600

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

3/ Ferrochromium containing more than 4% carbon.

4/ Ferrochromium containing more than 3% but not more than 4% carbon.

5/ Ferrochromium containing not more than 3% carbon.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN  
JANUARY 1998, BY GRADE AND BY COUNTRY 1/

Country	Gross weight (metric tons)	Value 2/ (thousands)
Other than waste and scrap:		
China	199	\$1,280
France	144	1,380
Germany	6	128
Japan	3	94
Netherlands	4	30
Russia	244	1,780
Singapore	(3/)	12
Switzerland	(3/)	5
Taiwan	1	5
United Kingdom	100	935
Total	701	5,650

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.

3/ Less than 1/2 unit.

Source: Bureau of the Census.